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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,405	09/24/2003	Katsuhiro Sasaki	P/1878-183	8078
2352	7590	07/27/2005	EXAMINER	
OSTROLENK FABER GERB & SOFFEN 1180 AVENUE OF THE AMERICAS NEW YORK, NY 100368403			HUYNH, CHUCK	
			ART UNIT	PAPER NUMBER
			2683	

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/671,405

Applicant(s)

SASAKI, KATSUHIRO

Examiner

Chuck Huynh

Art Unit

2683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1, 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagai et al (hereinafter Nagai) in view of Shorey (hereinafter Shorey).

Regarding claim 1, Nagai discloses a radio terminal comprising:

end-to-end delay acquisition means for measuring the end-to-end delay time, which is the delay time required for end-to-end transmission and reception (Page 5, [0033]); and

activation period modification determination means for modifying the activation period of said radio communication module such that the end-to-end delay time that has been measured by said end-to-end delay time acquisition means is equal to or less than a standard value that has been stipulated in advance (Page 8, [0061]).

Nagai discloses all the particulars of the claim except means for performing power-save operations by intermittently activating a radio communication module for performing radio communication with a radio base station.

However, Shorey does disclose means for performing power-save operations by intermittently activating a radio communication module for performing radio communication with a radio base station (Abstract; Col 2, lines 53-59; Col 7, lines 39-47; Col 9, lines 35-47; Col 10, lines 24-34).

3. Claim 3, 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagai in view of Shorey in further view of Bearden et al (hereinafter Bearden).

Regarding claim 3, Nagai in view of Shorey discloses all the particulars of the claim except a radio terminal according to claim 1, wherein said end-to-end delay acquisition means measures said end-to-end delay time based on the time for a packet to make a round trip to and from the terminal of a communication partner.

However, Bearden does disclose a radio terminal according to claim 1, wherein said end-to-end delay acquisition means measures said end-to-end delay time based on the time for a packet to make a round trip to and from the terminal of a communication partner (Page 4, [0039]).

It would have been obvious to one ordinarily skilled in the art at the time of invention to calculate the end-to-end delay through a roundtrip signal packet to determine the time from one point to another and back.

Regarding claim 5, Bearden discloses a radio terminal according to claim 3, wherein said packet is a PING packet (Page 4, [0039]).

Regarding claim 6, Nagai discloses a radio terminal according to claim 3, wherein said packet is an RTCP packet (Page 5, [0036, 00039]).

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shorey in view of Nagai.

Regarding claim 2, Shorey discloses radio terminal comprising:

means for performing power-save operations by intermittently activating a radio communication module for performing radio communication with a radio base station (Col 2, lines 53-59; Col 7, lines 39-47);

end-to-end delay acquisition means for measuring the end-to-end delay time, which is the delay time required for end-to-end transmission and reception (Col 9, lines 35-47; Col 10, lines 24-34, 35);

activation period notification packet transceiving means for both transmitting an activation period notification packet for reporting its own activation period to the terminal of a communication partner and receiving activation period notification packets from the terminal of a communication partner (Polling and then switching of power modes) (Col 9, lines 35-47; Col 10, lines 24-34); and

activation period modification determination means for directing said activation period notification packet transceiving means to transmit an activation period notification packet to the terminal of a communication partner when the end-to-end delay time that has been measured by said end-to-end delay acquisition means is equal to or greater than a standard value that has been set in advance, comparing the activation period

that has been reported from the terminal of a communication partner by means of an activation period notification packet with its own activation period (Col 9, lines 35-47; Col 10, lines 24-34).

Shorey discloses all the particulars of the claim except performing a modification to shorten its own activation period when its own activation period is equal to or greater than the activation period of the terminal of the communication partner.

However, Nagai does disclose performing a modification to shorten its own activation period when its own activation period is equal to or greater than the activation period of the terminal of the communication partner (Page 5, [0036]); Page 8, [0060]; Page 4, [0026]).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Nagai's disclosure with Shorey to reduce delay in communication.

5. Claim 4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shorey in view of Nagai in further view of Bearden.

Regarding claim 4, Shorey in view of Nagai discloses all the particulars of the claim except a radio terminal according to claim 2, wherein said end-to-end delay acquisition means measures said end-to-end delay time based on the time for a packet to make a round trip to and from the terminal of a communication partner.

However, Bearden does disclose a radio terminal according to claim 1, wherein said end-to-end delay acquisition means measures said end-to-end delay time based

on the time for a packet to make a round trip to and from the terminal of a communication partner (Page 4, [0039]).

It would have been obvious to one ordinarily skilled in the art at the time of invention to calculate the end-to-end delay through a roundtrip signal packet to determine the time from one point to another and back.

Regarding claim 7, Bearden discloses a radio terminal according to claim 4, wherein said packet is a PING packet (Page 4, [0039]).

Regarding claim 8, Shorey in view of Nagai discloses a radio terminal according to claim 4, wherein said packet is an RTCP packet (Page 5, [0036, 00039]).

Regarding claim 9, Shorey discloses a radio terminal comprising:  
means for performing power-save operations by intermittently activating a radio communication module for performing radio communication with a radio base station (Col 2, lines 53-59; Col 7, lines 39-47);

activation period modification determination means for acquiring the network delay time from said radio base station to a fixed terminal of a communication partner from said network delay time database before beginning communication with said fixed terminal (Col 10, line 35; Col 9, lines 35-47; Col 10, lines 24-34);

calculating the end-to-end delay time, which is the time required for end-to-end transmission and reception, by adding the network delay time and the radio space delay time to said radio base station (Col 10, lines 9-23); and

modifying the activation period of said radio communication module such that the end-to-end delay time is limited to the stipulated standard value or less (Col 8, lines 20-22).

Shorey discloses all the particulars of the claim except a network delay time database for storing, for each fixed terminal that can be connected without the interposition of radio space, the network delay time from said radio base station to said fixed terminal.

However, Da does disclose a network delay time database for storing, for each fixed terminal that can be connected without the interposition of radio space, the network delay time from said radio base station to said fixed terminal (Col 4, lines 51-53; Col 5, lines 15-21).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate a storage space for data such as time delay data for future calculation manipulation purposes.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claim 10, 11 are rejected under 35 U.S.C. 102(e) as being anticipated by

Shorey.

Regarding claim 10, Shorey discloses an end-to-end delay control method for limiting end-to-end delay time, which is the delay time required for end-to-end transmission and reception, to a stipulated standard value or less in a radio terminal that performs power- save operations by intermittently activating a radio communication module for performing radio communication with a radio base station, said method comprising steps of:

measuring said end-to-end delay time (Col 2, lines 53-59; Col 7, lines 39-47; Col 8, lines 20-22); and

modifying the activation period of said radio communication module such that said end-to-end delay time that has been measured is equal to or less than a standard value that has been stipulated in advance (Col 9, lines 35-47; Col 8, lines 20-22).

8. Claim 12, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shorey in further view of Bearden.

Regarding claim 12, Shorey discloses all the particulars of the claim except a radio terminal according to claim 10, wherein said end-to-end delay acquisition means

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measures said end-to-end delay time based on the time for a packet to make a round trip to and from the terminal of a communication partner.

However, Bearden does disclose a radio terminal according to claim 1, wherein said end-to-end delay acquisition means measures said end-to-end delay time based on the time for a packet to make a round trip to and from the terminal of a communication partner (Page 4, [0039]).

It would have been obvious to one ordinarily skilled in the art at the time of invention to calculate the end-to-end delay through a roundtrip signal packet to determine the time from one point to another and back.

Regarding claim 14, Bearden discloses a radio terminal according to claim 12, wherein said packet is a PING packet (Page 4, [0039]).

9. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shorey in view of Bearden in further view of Nagai.

Regarding claim 15, Shorey in view of Bearden disclose all the particulars of the claim except a radio terminal according to claim 12, wherein said packet is an RTCP packet.

However, Nagai does disclose a radio terminal according to claim 12, wherein said packet is an RTCP packet (Page 5, [0036, 00039]).

It would have been obvious to one ordinarily skilled in the art at the time of invention to apply Nagai's disclosure of RTCP for determining delay information.

Regarding claim 11, Shorey discloses an end-to-end delay control method for limiting end-to-end delay time, which is the delay time required for end-to-end transmission and reception, to a stipulated standard value or less in a radio terminal that performs power-save operation by intermittently activating a radio communication module for performing radio communication with a radio base station, said method comprising steps of:

measuring said end-to-end delay time (Col 2, lines 53-59; Col 7, lines 39-47; Col 8, lines 20-22);

transmitting to the terminal of a communication partner an activation period notification packet for reporting its own activation period to the terminal of the communication partner when said end-to-end delay time that has been measured is equal to or greater than a standard value that has been set in advance (Col 10, lines 27-35),

comparing its own activation period with the activation period that has been reported by an activation period notification packet from the terminal of a communication partner (Col 10, lines 27-35); and

carrying out its own modification to shorten its own activation period when its own activation period is equal to or greater than the activation period of the terminal of the communication partner (Col 8, lines 20-22).

10. Claim 13, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shorey in further view of Bearden.

Regarding claim 13, Shorey discloses all the particulars of the claim except a radio terminal according to claim 11, wherein said end-to-end delay acquisition means measures said end-to-end delay time based on the time for a packet to make a round trip to and from the terminal of a communication partner.

However, Bearden does disclose a radio terminal according to claim 1, wherein said end-to-end delay acquisition means measures said end-to-end delay time based on the time for a packet to make a round trip to and from the terminal of a communication partner (Page 4, [0039]).

It would have been obvious to one ordinarily skilled in the art at the time of invention to calculate the end-to-end delay through a roundtrip signal packet to determine the time from one point to another and back.

Regarding claim 16, Bearden discloses a radio terminal according to claim 13, wherein said packet is a PING packet (Page 4, [0039]).

11. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shorey in view of Bearden in further view of Nagai.

Regarding claim 17, Shorey in view of Bearden disclose all the particulars of the claim except a radio terminal according to claim 13, wherein said packet is an RTCP packet.

However, Nagai does disclose a radio terminal according to claim 13, wherein said packet is an RTCP packet (Page 5, [0036, 00039]).

It would have been obvious to one ordinarily skilled in the art at the time of invention to apply Nagai's disclosure of RTCP for determining delay information.

12. Claim 18 rejected under 35 U.S.C. 103(a) as being unpatentable over Shorey in view of Da.

Regarding claim 18, Shorey discloses an end-to-end delay control method for limiting end-to-end delay time, which is the delay time required for end-to-end transmission and reception, to a stipulated standard value or less in a radio terminal that performs power- save operations by intermittently activating a radio communication module for performing radio communication with a radio base station (Col 1, lines 10-45; Col 2, lines 53-59; Col 7, lines 39-47; Col 8, lines 20-22), said method comprising steps of:

calculating the end-to-end delay time, which is the time required for end-to-end transmission and reception, by adding the network delay time to the radio space delay time to said radio base station (Col 10, lines 1-14); and

modifying the activation period of said radio communication module such that the end-to-end delay time is limited to a stipulated standard value or less (Col 8, lines 20-22; Col 9, lines 37-42).

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Shorey discloses all the particulars of the claim except acquiring the network delay time from said radio base station to the fixed terminal of a communication partner from a network delay time database before starting communication with said fixed terminal.

However, Da does disclose acquiring the network delay time from said radio base station to the fixed terminal of a communication partner from a network delay time database before starting communication with said fixed terminal (Col 4, lines 51-53; Col 5, lines 15-21).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate a storage space for data such as time delay data for future calculation manipulation purposes.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bae, Sang-Min discloses an Apparatus and method for measuring a received signal to interference ratio in a mobile communication system


Varsa, Viktor discloses a Method for enabling packet transfer delay compensation in multimedia streaming

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuck Huynh whose telephone number is 571-272-7866. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chuck Huynh

  
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